INSTALLATION

HS1500 High-Security Enclosure

C493M-G (11/97)

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Important Safeguards and Warnings

Prior to installation and use of this product, the following WARNINGS should be observed.

1. Installation and servicing should only be done by qualified service personnel and conform to all local codes.
2. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.
3. Only use replacement parts recommended by Pelco.
4. After replacement/repair of this unit's electrical components, conduct a resistance measurement between line and exposed parts to verify the exposed parts have not been connected to line circuitry.
5. The installation method and materials should be capable of supporting four times the weight of the enclosure, pan/tilt, camera and lens combination.
6. The camera and lens combination shall not exceed 20 lbs (9.09 kg).

The product and/or manual may bear the following marks:

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

CAUTION: To reduce the risk of electrical shock, do not remove cover. No user-servicable parts inside. Refer servicing to qualified service personnel.

CAUTION:
RISK OF ELECTRIC SHOCK. DO NOT OPEN.

Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

Description

The HS1500 is a high security camera enclosure of medium size designed for indoor "corner mount" installation for such applications as elevators, parking garages, classrooms, detention cells, etc., requiring maximum protection from vandalism in an unobtrusive package. Designed to fit flush to the ceiling in a corner, an optional hood (HS1500H) allows the HS1500 to be mounted lower on the wall and still retain the enclosure's integrity. An impact-resistant clear Lexan window is supplied.

Constructed of heavy gauge steel, the HS1500 will accept most small CCD cameras with fixed focal length lenses ranging in size from 4 mm to 75 mm. There is no exposed mounting hardware securing the HS1500 to its mounting surface. Opening the enclosure can only be accomplished with a specially designed tool, eliminating the possibility of the enclosure being opened by unauthorized personnel. In addition, a factory-installed tamper switch is mounted on the secured access cover.

MODELS

HS1500	High security corner mount enclosure designed to fit flush with the ceiling. For use in applications such as elevators, parking garages, classrooms, detention cells, etc., requiring maximum protection from vandalism in an unobtrusive package.

OPTIONS

HB1500	120 VAC thermostatically controlled heater. Provides 80 watts of heat which activates ON at 40°F; OFF at 60°F. Also includes fan that provides continuous internal air circulation.
HB1524	Same as HB1500 except 24 VAC thermostatically controlled heater.
HS1500H	Hood for mid-wall mounting of HS1500 enclosure.

Installation

NOTE: The four (4) fasteners required to secure the HS1500 to a wall (minimum 3/8" diameter recommended) are not supplied.

Before installing the HS1500 to a wall, make certain that the mounting surface is able to support the full weight of the enclosure plus the camera and lens.

The tilt table and tilt table mounting brackets may be removed to provide adequate clearance for mounting the enclosure.

CEILING MOUNTING (FLUSH)

To mount the enclosure to a wall (tight to the ceiling), follow the steps outlined below.

1. Remove the cover from the mounting bracket. A special socket is provided (fits 1/4" square drive).
2. Using the mounting bracket (see Figure 4) or the template provided, mark and drill holes in the mounting surface.

   NOTE: A plate is provided to prevent access through the top of this enclosure. If needed, it is mounted with the mounting bracket using the same mounting holes and hardware
3. Attach the enclosure with the required fasteners.
4. Route the required cables through the back and/or top.
5. Mount the camera/lens to the tilt table.
6. Make all appropriate connections (i.e., camera power, video (coax), lens).
7. Position the camera and tighten the 1/4-20 fasteners to secure the tilt table in place.
8. Replace the cover and check that all components clear. Secure the cover with the 1/4-20 "Tampruf" screw provided.

MID-WALL MOUNTING

To mount the HS1500 enclosure mid-wall, use the optional hood, HS1500H, and perform the following steps (see Figure 1):

1. Determine the position for the hood. Using it as a template, mark and drill holes in the mounting surface.
2. Attach the hood with the required fasteners (minimum 3/8" diameter recommended).
3. Continue with steps 1-8 listed above in Ceiling Mounting section.

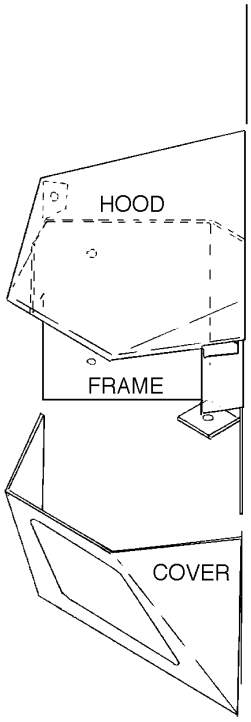
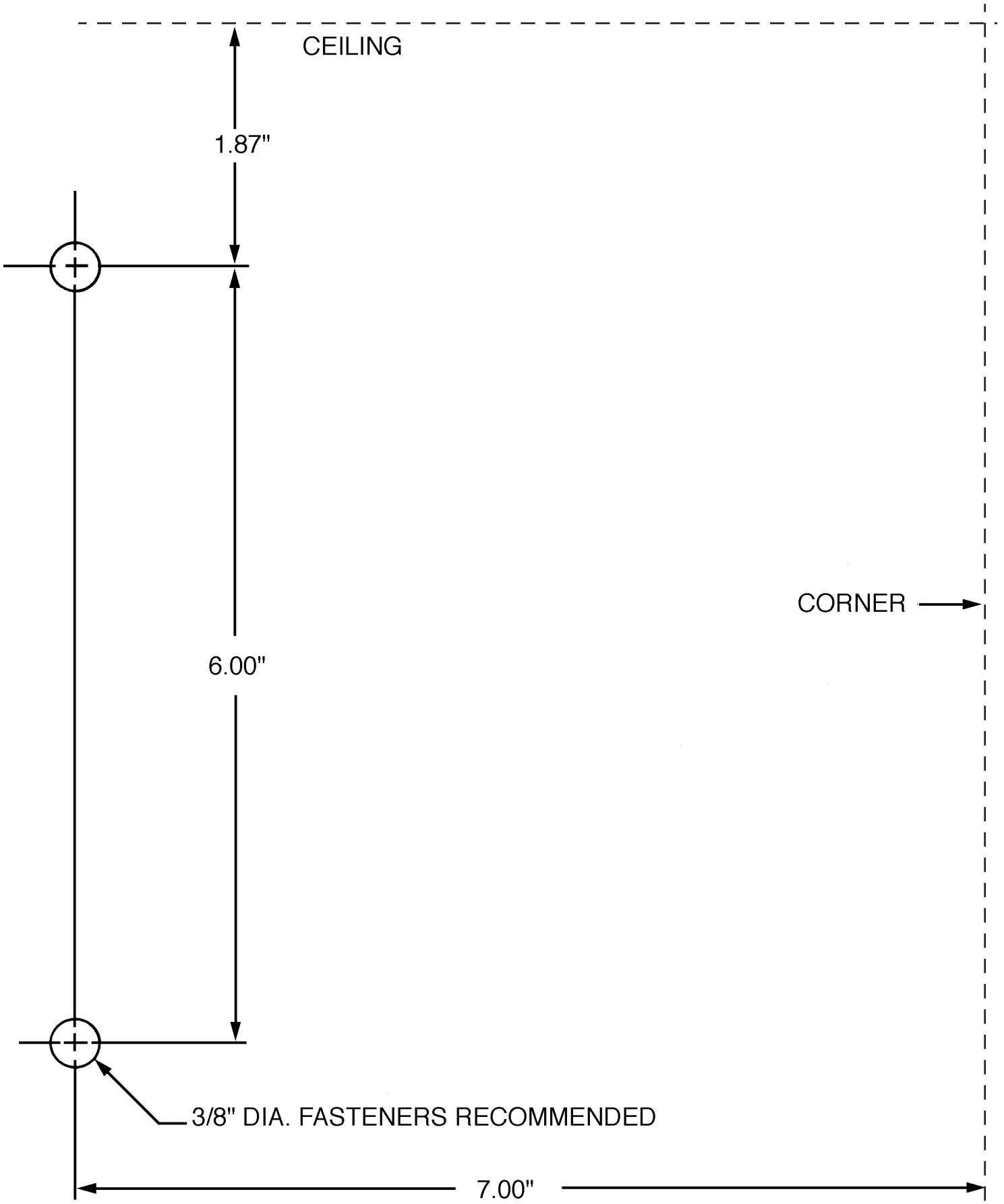


Figure 1. HS1500H Installation


CEILING
1.87"
CORNER
6.00"
3/8" DIA. FASTENERS RECOMMENDED
7.00"

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HB1500/HB1524 HEATER/BLOWER KIT

The HB1500/HB1524 heater/blower kits require either 120 VAC or 24 VAC, respectively. The heater provides 80 watts of heat and is thermostatically controlled to turn on at 40°F (4.44°C) and turn off at 60°F (15.56°C). The three-watt fan is on continously to provide internal air circulation.

RECOMMENDED CABLE SIZE

The following cable sizes are the minimum recommended for use with the combination of blower/heater/camera.

⚠ **CAUTION:** When using a single power source for both the camera and accessories, the camera power consumption must be taken into consideration when determining the wire gauge.

Model	Input Voltage	Power Consumption	Cable Size	Cable Distance
HB1500	120 VAC	85 Watts	22 Awg 20 Awg 18 Awg 18 Awg	524 ft (160 m) 834 ft (254 m) 1327 ft (404 m) 2107 ft (642 m)
HB1524	24 VAC	85 Watts	20 Awg 18 Awg 16 Awg 14 Awg	33 ft (10 m) 53 ft (16 m) 84 ft (26 m) 134 ft (41 m)

HEATER/BLOWER KIT INSTALLATION

To install the HB1500/HB1524 heater/blower kit, perform the following steps:

1. Remove the cover (Figure 5, item 4).
2. Attach the heater pads to each side of the mounting frame, below the tilt table assembly.
3. Attach the PC board/fan assembly to the mounting frame, to the left or right of the tilt table assembly (see Figure 2).
4. The blower is factory wired to the PCB assembly.
5. Close and lock the cover.

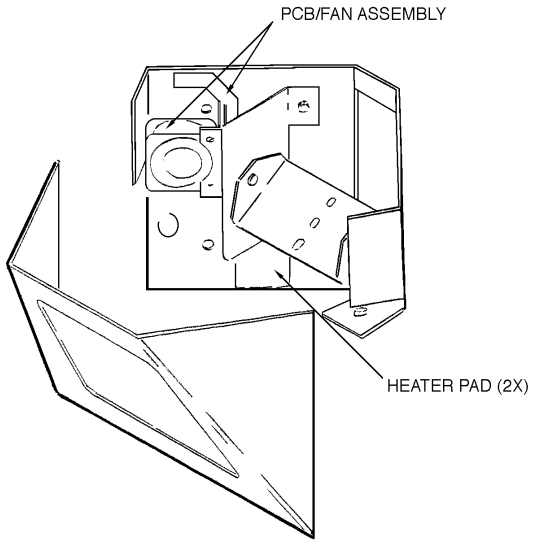

Figure 2. Heather/Blower Installation

Connect the heaters to the PCB assembly as shown in Figure 3.

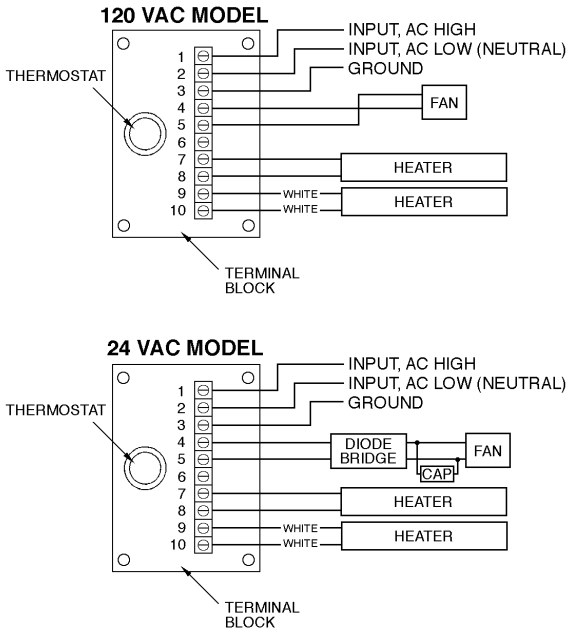

Figure 3. Heater/Blower Wiring Diagram

TAMPER SWITCH INSTALLATION

The HS1500 enclosure comes standard from the factory with a tamper switch installed. Should it become necessary to install a replacement switch, refer to Figure 4 for the correct position of the bracket/switch and perform the following steps:

1. Remove the front cover.
2. Install the bracket/switch and secure with lockwashers and nuts.

TAMPER SWITCH WIRING

The tamper switch comes with both a "Normally Open" and a "Normally Closed" contact.

For a "Normally Open" circuit, use the "open" and "common" terminals; for a "Normally Closed" circuit, use the "closed" and "common" terminals.

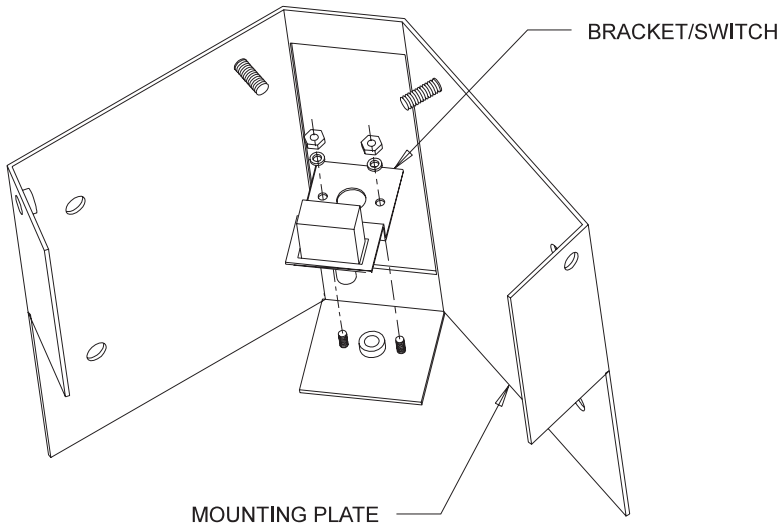

Figure 4. Tamper Switch Installation

Maintenance

Maintenance performed at regularly scheduled intervals will help prolong the operational life and appearance of the equipment.

Clean the Lexan window with a mild non-abrasive detergent in water and a soft cloth regularly to help maintain picture clarity. For a heavily soiled window, use vinyl cleaner.

Exploded Assembly Diagram

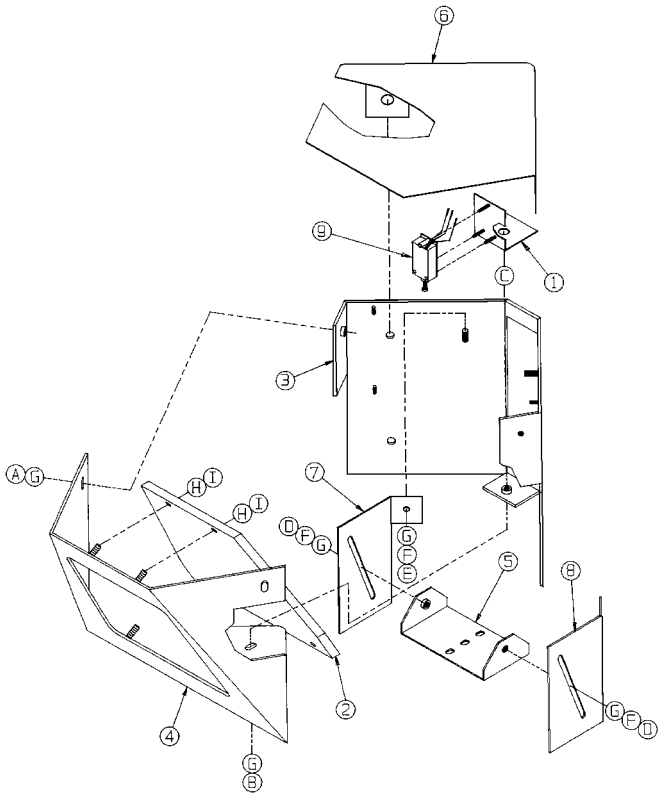

Figure 5. HS1500 Enclosure Exploded Assembly Diagram

Table A. HS1500 Enclosure Exploded Assembly Parts Lists

Item No.	Qty	Description	Part Number
1	1	Bracket, switch, break-in	HS10004313COMP
2	1	Window, 10" x 9" x .50" drilled MR5 clear Lexan	HS150010009
3	1	Plate, mounting	HS15004001COMP
4	1	Cover, front	HS15004003COMP
5	1	Tilt table	HS15004008COMP
6	1	Cover, top, corner mount	HS15004023COMP
7	1	Bracket, mount, tilt table, left	HS20004115COMP
8	1	Bracket, mount, tilt table, right	HS20004215COMP
9	1	Switch, tamper	SWI1DM401
A	2	Screw, 1/4-20 x 1/2", round, Tampruf #10, SS	ZH1/4-20X.50SRT
B	1	Screw, 1/4-20 x 3/4", round, Tampruf #10, SS	ZH1/4-20X.75SRT
C	2	Tape, two-sided, acrylic x inch	ZHTAPE1.00X.025
D	2	Bolt, 1/4-20 x 5/8" hex head C/S, SS	ZH1/420X.625CH
E	2	Nut, hex, 1/4-20, SS	ZH1/4-20NUTCH
F	4	Washer, split lock, 1/4" SS	ZH1/4LWSSL
G	7	Washer, flat 3/16" special, SS	ZH260X562X65C
H	4	Washer, flat 15/16", SS	ZH932X1.75X130
I	4	Nut, lock 1-4/20 Nylon insert, SS	ZH1/420NUTCHN
J	1	Socket, Tampruf #10, 1/4" drive (not shown)	ZTSOCKET10

Specifications

MECHANICAL

Window	1/2" (12.7 mm) thick impact and abrasion resistant clear Lexan
Camera Mounting	Adjustable tilt table
Maximum Camera/Lens Size	Accepts camera/lens combinations (including BNC connector) up to: 8.0" L x 4.0" W x 4.0" H (20.32 cm x 10.16 cm x 10.16 cm)
Enclosure Mounting	Four (4) .390" (.99 cm) diameter holes on protected rear surface
Security	Tamper-resistant screw. N.O./N.C. switch contact on cover
Tamper Switch	Plunger type door switch with "pull to cheat" feature N.O/N.C. contacts clearly marked on body of switch. DM electrical rating 10A, 125V.

ELECTRICAL

Cable Entry	Access through back and top
Tamper Switch Wire Leads	1/4" (0.63 cm) quick connect N.O./N.C. clearly marked on switch body 10A, maximum switching current 125V, maximum switching voltage

GENERAL

Construction	Formed 10 gauge 0.134" (0.34 cm) steel
Finish	Polyester powder coat
Dimensions	See Figure 6
Environment	Indoor; 32° to 120° (0° to 48.89° C)
Unit Weight	15 lbs 4 oz (6.77 kg)

(Design and product specifications subject to change without notice.)

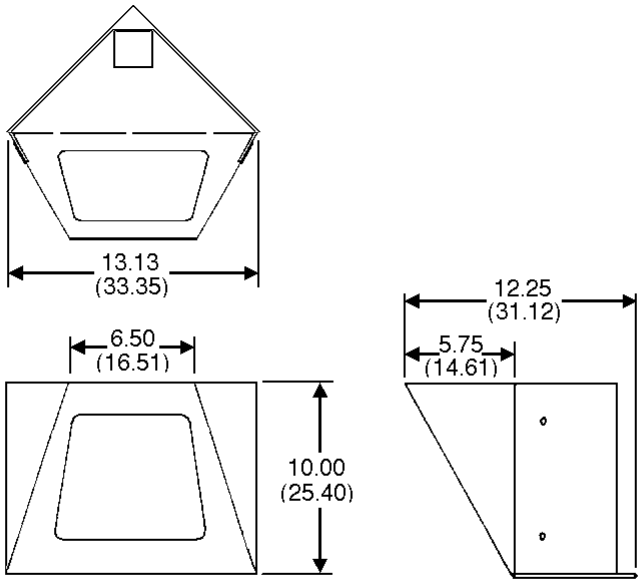

Figure 6. HS1500 Enclosure Dimension Drawing

PRODUCT WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Two years (except lamp and color wheel) on Digital Light Processing (DLP®) displays. The lamp and color wheel will be covered for a period of 90 days. The air filter is not covered under warranty.
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

Service Department
Pelco
3500 Pelco Way
Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco
3500 Pelco Way
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors
473 Eccles Avenue
South San Francisco, CA 94080 USA
Phone: 650-737-1700
Fax: 650-737-0933

This equipment contains electrical or electronic components that must be recycled properly to comply with Directive 2002/96/EC of the European Union regarding the disposal of waste electrical and electronic equipment (WEEE). Contact your local dealer for procedures for recycling this equipment.

REVISION HISTORY

Manual #	Date	Comments
C493M	5/90	Original manual.
C493M	1/91	Rev. A. Revised to include HB1524 and HS1500H options and heater/blower kit information.
C493M	5/91	Rev. B. Figure 2, HS1500H Installation added.
C493M	11/93	Rev. C. Exploded assembly diagram and parts list updated.
C493M-D	9/95	Rev. D. Revised to include wiring instructions for tamper switch and metric equivalents for specifications. Heater/blower wiring diagram updated to include 24 VAC model.
C493M-E	11/95	Rev. E. Revised to include updated tamper switch/bracket part numbers and exploded view diagram.
C493M-F	1/96	Rev. F. Revised to include updated specification description, installation instructions, and part numbers for tamper switch update per ECO 95-397.
C493M-G	11/97	Rev. G. Revised to new format. Updated heater-blower information to indicate blower operated in continuous duty mode.

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